BIMA
BIOMETRICS IDENTITY MANAGEMENT AGENCY

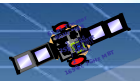
DoD/DHS/DoJ Interoperability: Completing the Triad

22 February 2011
AFCEA Homeland Security Conference

Dr. Thomas Killion

BIMA BIOMETRICS IDENTITY MANAGEMENT AGENCY

Biometrics Process in Support of DoD Operations



Global Communications

Biometric Modalities

- Fingerprint
- Iris
- Face
- Palm
- DNA
- Voice
- Future Modalities

Collect

Manage

Store

Match

Share

Analyze/Reference Data

Decide Act

Operational Applicatio

- Populace Management
- Force Protection
- Access
- Surveillance
- Monitoring
- Combat ID

Maritime Interdiction Vessel

Military Operations and Business Functions

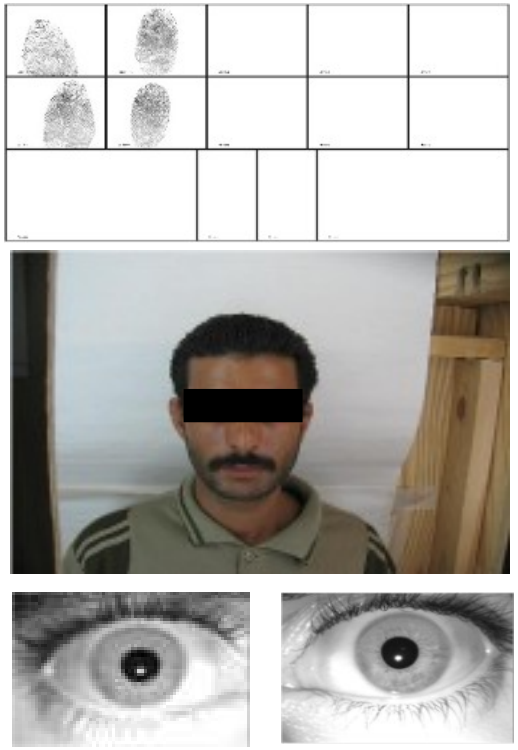
DoD ABIS Overview

- DoD ABIS online July 2004 (fingerprints only)
- DoD NG ABIS online 30 Jan 2009 (multi-modal)
- Stores and matches fingerprint, iris, face, and palm moda
- 3,800+ transactions per day; rated for 8,000
- 4.2M records rated capacity
- Greater operational capability
  - Single or multi-modal processing
  - Expandable to process additional modal
  - 95% lights-out matches
  - Latent to latent searches
    - 120k latent fingerprints
    - 8600 latent matches; 3400 latent to latent matches
  - Latent palm print capabilities
- During data migration from ABIS to NG-ABIS, observed 10% new matches the previous system missed

Multi-Modal Biometric Fusion

Multi-modal biometric fusion (currently DoD ABIS only) results in:

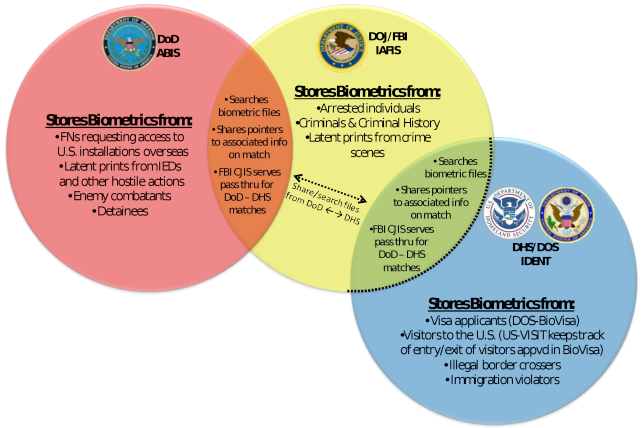
- **More matches through the correlation of other modalities**
- **More auto-identification, with lower number of manual examinations required**
- **Improved overall system accuracy and performance**



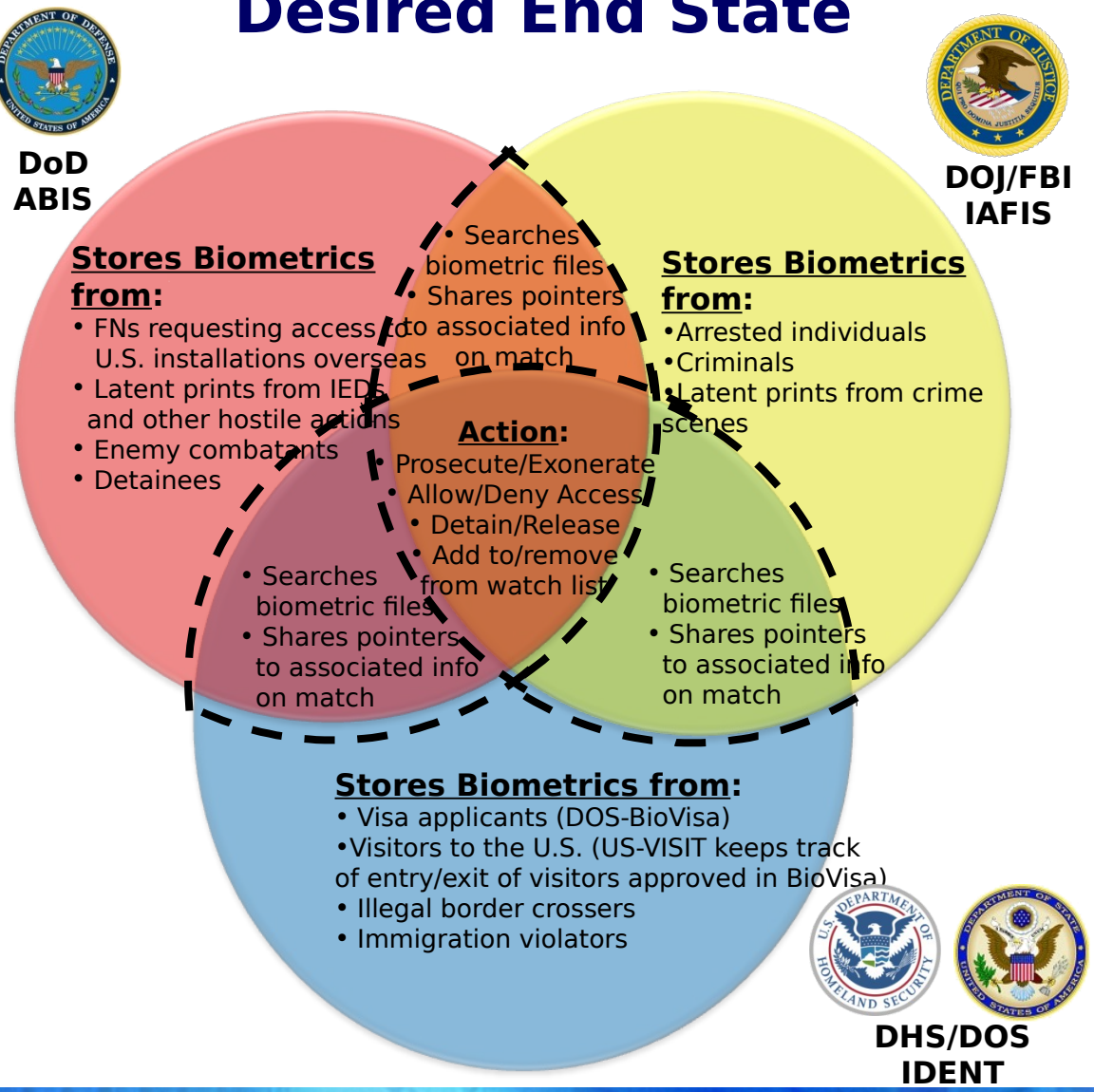
The fusion algorithm combined near matches to identify the

Interagency Data Sharing

Current State


DoD ABIS
Stores Biometrics from:
•FNs requesting access to U.S. installations overseas
•Latent prints from IEDs and other hostile actions
•Enemy combatants
•Detainees
• Searches biometric files
• Shares pointers to associated info on match
• FBI CJIS serves pass thru for DoD – DHS matches
DOJ/FBI IAFIS
Stores Biometrics from:
•Arrested individuals
•Criminals & Criminal History
•Latent prints from crime scenes
Share/search files from DoD ↔ DHS
• Searches biometric files
• Shares pointers to associated info on match
• FBI CJIS serves pass thru for DoD – DHS matches
DHS/DOS IDENT
Stores Biometrics from:
•Visa applicants (DOS-BioVisa)
•Visitors to the U.S. (US-VISIT keeps track of entry/exit of visitors appvd in BioVisa)
•Illegal border crossers
•Immigration violators

Desired End State


DoD ABIS
DOJ/FBI IAFIS
Stores Biometrics from:
• FNs requesting access to U.S. installations overseas
• Latent prints from IEDs and other hostile actions
• Enemy combatants
• Detainees
• Searches biometric files
• Shares pointers to associated info on match
Stores Biometrics from:
•Arrested individuals
•Criminals
•Latent prints from crime scenes
Action:
• Prosecute/Exonerate
• Allow/Deny Access
• Detain/Release
• Add to/remove from watch list
• Searches biometric files
• Shares pointers to associated info on match
• Searches biometric files
• Shares pointers to associated info on match
Stores Biometrics from:
• Visa applicants (DOS-BioVisa)
•Visitors to the U.S. (US-VISIT keeps track of entry/exit of visitors approved in BioVisa)
• Illegal border crossers
• Immigration violators
DHS/DOS IDENT

Summary

- **DoD Authoritative Database**
- **Current Sharing Environment**
  - Manually Intensive
  - Limited Throughput
- **Future Sharing Environment**
  - Broader Sharing
  - Automated Processes

Questions